

Statement of Work

Background

NIST has acquired several Data Plane Development Kit (DPDK). DPDK is a Linux Foundation Project, developed by hundreds of contributors. DPDK is an Open Source BSD licensed project. The DPDK Project is comprised of one core software project which is DPDK itself, and a few smaller sub-projects that are closely related to DPDK. The core DPDK project is comprised of a number of git repositories, including a master repository, several "next" repositories which are used to apply changes to specific parts of DPDK before these are pulled into the master repository, and a stable release repository.

Objectives

The objective is to purchase training for 12 personnel on the use of Intel's DPDKs for a period of two days. Personnel will then apply their new understanding of DPDKs to their projects.

Scope

The contractor shall provide onsite training to NIST personnel on Intel's DPDKs.

Tasks

The training shall include the following

1. Introduction to DPDK
2. DPDK Position in the System
3. Libraries to include multicore framework, huge page memory, ring buffers, and poll-mode drivers for networking, crypto and eventdev
4. Initialization of System
5. Life of a Packet
6. DPDK Applications
7. Integration of DPDK
8. Configuration and Building
9. Deploying DPDK Systems
10. Benchmarking and Performance Optimization

Delivery

Training shall take place over the course of 2 days within 60 days of receipt of purchase order. Contractor shall schedule training dates with NIST designated Technical Point of Contact within 15 days of receipt of purchase order.

Place of Performance

Training shall take place on the Gaithersburg Campus, Maryland.

Period of Performance

Within 60 days of receipt of purchase order.